Climate Change and Human Health Literature Portal

National Institute of
Environmental Health Sciences

Climate change and parasitic disease: Farmer mitigation?

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Abstract:

Global climate change predictions suggest that far-ranging effects might occur in the population dynamics and distributions of livestock parasites, provoking fears of widespread increases in disease incidence and production loss. However, several biological mechanisms (including increased parasite mortality and more rapid acquisition of immunity), in tandem with changes in husbandry practices (including reproduction, housing, nutrition, breed selection, grazing patterns and other management interventions), might act to mitigate increased parasite development rates, preventing dramatic rises in overall levels of disease. Such changes might, therefore, counteract predicted climate-driven increases in parasite challenge. Optimum mitigation strategies will be highly system specific and depend on detailed understanding of interactions between climate, parasite abundance, host availability and the cues for and economics of farmer intervention.

Source: http://dx.doi.org/10.1016/j.pt.2009.03.012

Resource Description

Exposure : ☒

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Security, Precipitation, Temperature

Food/Water Security: Livestock Productivity

Temperature: Fluctuations

Geographic Feature: ☒

resource focuses on specific type of geography

None or Unspecified

Geographic Location: ☒

resource focuses on specific location

Global or Unspecified

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☒

format or standard characteristic of resource

Policy/Opinion, Review

Timescale: ☒

time period studied

Time Scale Unspecified